

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method of ~~treating~~ de-cellularizing native tissue of mammalian origin comprising directly and completely immersing said tissue in a treating solution, and irradiating the tissue with ~~microwave~~ microwaves while maintaining the temperature of the tissue in the range between 0°C and 40°C, and preventing tissue matrix from denaturing for a period of time to substantially decellularize said tissue.

2. **(Currently Amended)** The method of claim 1 wherein said treatment is decellularization of said tissue, and wherein said treating solution is water, a hypertonic solution, or a hypotonic solution, a detergent solution, an enzyme solution, or a liquid medium, ~~or a mixture thereof with a small proportion of an organic solvent.~~

3. **(Canceled)**

4. **(Currently Amended)** The method of claim 1 wherein said tissue is irradiated with ~~microwave~~ microwaves at a frequency of 2450 MHz for a net period of time from 1 hour to 1 week.

5. **(Previously Presented)** The method of Claim 1 wherein said native tissue to be treated is soft tissue including vascular vessel, heart valve, heart sac, cornea, amonion and dura.

6. **(Previously Presented)** The method of Claim 1 wherein said native tissue to be treated is hard tissue including bone, cartilage and teeth.

7. **(Previously Presented)** The method of Claim 1 wherein said native tissue to be treated is an organ or part thereof including heart, kidney, liver, pancreas, brain and part thereof.

8. **(Original)** The method of claim 2 further comprising the step of washing said tissue with a fresh washing liquid following said irradiation step to remove destructed donor cells.

9. **(Original)** The method of claim 2 wherein said native tissue to be treated has been pre-treated to facilitate the removal of donor cells.

10. **(New)** A method of de-cellularizing native tissue of mammalian origin comprising immersing said tissue in a treating solution, and irradiating the tissue with microwaves while maintaining the temperature of the tissue in the range between 0°C and 40°C, whereby said tissue is decellularized.